

Delta Independent Science Board

Looking back on 2014, forward to 2015

Delta Stewardship Council

January 29, 2015

Looking back on 2014

Final Letter on the Interim Science Action Agenda

Final Letter on the 2014 Bay-Delta Science Conference

Final Memo: ISB Review of the Draft Interim Science Action Agenda

Draft Survey Concerning Adaptive Management in the Delta

Fish and Flows Review Team Update

ISB Plans for Program Reviews: Water Quality, Delta Levees, Water Reliability, Delta as Place, and Adaptive Management

Review of the Draft BDCP EIR/EIS and Draft BDCP*

Preliminary draft of comments on The Delta Science Program

Independent Review Panel Report on the BDCP Effects Analysis, Phase 3

Looking back on 2014

Review of the Draft BDCP EIR/EIS and Draft BDCP*

Preliminary draft of the cover memo comments on the BDCP Draft EIR/EIS

Preliminary Draft of the alternate page 1 for the cover memo

Preliminary draft of the Delta ISB's responses to the Charge to the Delta ISB for Review of the Draft BDCP Draft EIR/EIS (Appendix A)

Preliminary draft of the Comments by Chapter on the BDCP Draft Plan and the BDCP Draft EIR/EIS (Appendix B)

Looking back on 2014



Looking forward to 2015

- A partially recirculated DEIR/Supplemental DEIS (RDEIR/SDEIS)
- Continuing our series of thematic reviews (Fish and Flows, Adaptive Management, Water Quality, Delta Levees, Water Reliability, Delta as Place)
- Comments on Data Summit white paper
- Review of the 2015 'State of Bay/Delta Science'
- Rotation of DISB leadership
- Another "In Delta" DISB meeting
- DISB evaluation and planning meeting i.e. a "retreat"

‘Fish and Flow’

Status Report

**Title: Fish, Flows, and Stressors in the
Sacramento-San Joaquin Delta**

Purpose

Response to the ISB's mandate to "... provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta through periodic reviews of each of those programs...."

The ISB is conducting these reviews by thematic areas; this one is on the effect of water flow on Delta fish populations in the context of other stressors.

The primary objective of this report is to improve understanding, scientific collaboration, and communication about the relationships among fishes, flows, and stressors.

Process

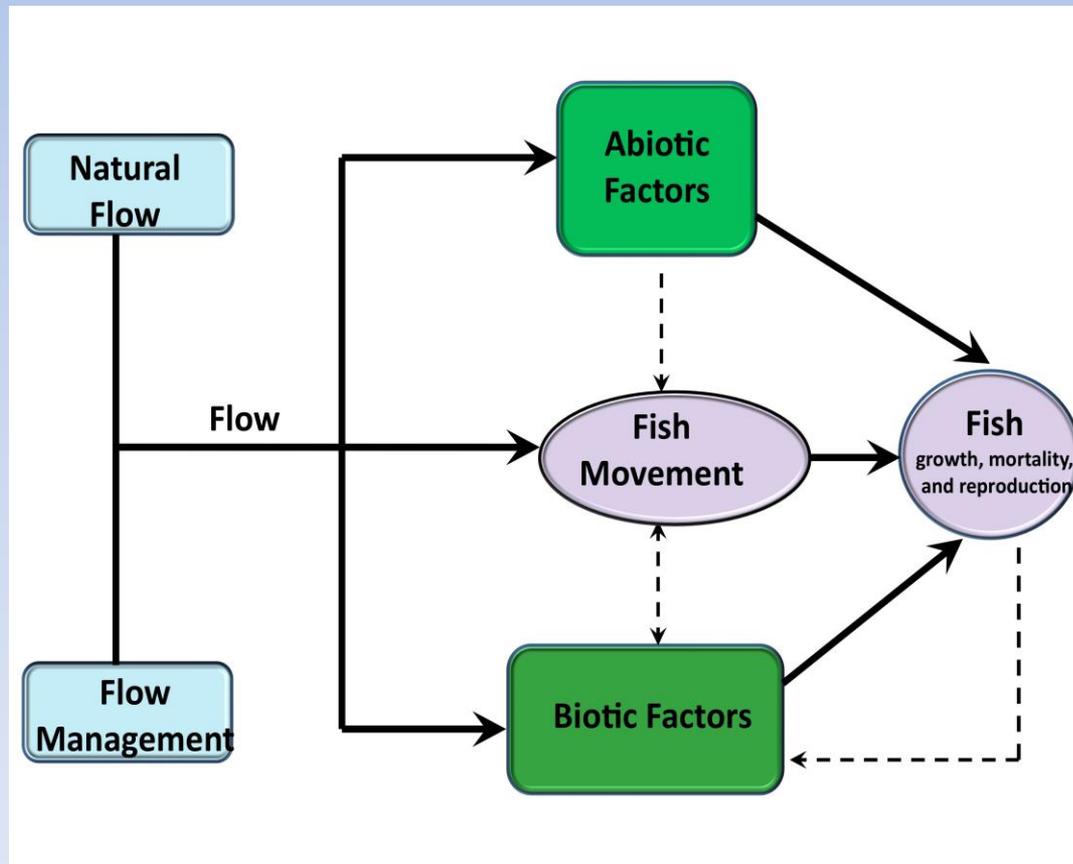
- Review published literature on fishes and flows in the Delta and other ecosystems
- Interviewed scientists from state and federal agencies, consulting firms, interest groups, and academia
- Attended key workshops run by the Delta Science Program for the State Water Resources Control Board and reviewed related panel reports
- Received presentations at ISB meetings
- Reviewed relevant agency reports on specific studies
- Requested comments on draft by individual ISB members

Context and Challenges

- An all-encompassing topic that links the co-equal goals
- A lot of work has been done on this topic, particularly related to correlation/statistical analyses
- Multiple stressors and altered ecosystem
- Some recent excellent reports covering a wide range of these topics. Two major Panel reports on Outflows and Interior Delta Flows in 2014
- Important policy implications

Findings:

- 1) Flows affect fish populations directly and indirectly in the context of multiple stressors
- 2) Need more of a causal orientation and framework for research (and eventually practice)



Recommendations on Critical Science Needs

- ◆ *Model development and focus on processes*
- ◆ *Timescales*
- ◆ *Monitoring*
- ◆ *Large-scale flow experiments*
- ◆ *Broaden species focus*
- ◆ *Timely synthesis of extensive research*
- ◆ *National and international connections*
- ◆ *Enhanced collaboration and reliable funding*

Next steps

- Current revisions based on input from the full ISB on January 15
- Expect draft released to full Board and public in time for next ISB meeting on March 5-6